



Digital Imaging

History

- The first digital camera made its debut in the early 1990's and, as with all technology, both cameras and digital imaging technology has evolved rapidly ever since.
- Kodak created the 1st digital camera.

What are the benefits to Digital over film?

1. It is instant!

- take photos then review them instantly. NO FILM!

2. It is versatile and transportable!

- transfer your images to a computer.
- Carry MANY pictures on small memory storage components. (SD, micro SD, USB, Phones)
- e-mail them, post them to a Web site, display them on a television.

3. Can be manipulated.

- Can brighten or darken an image, crop it to produce a better composition and print enlargements in a variety of sizes-all.

Terms

- **Pixel (mega pixel)** - a combination of the words "picture" and "element". One pixel represents the smallest element of an image or picture that can be represented on a CRT screen. (Pixels are usually represented by coloured dots.)
 - **Mega pixel** - "Mega" means million so, megapixel is one million pixels. – The number of pixels a camera can capture. (10MP – 10million pixels)
- **Resolution** - The term resolution refers to the number of pixels per inch or ppi. The greater the number of pixels per inch, the better the resolution of the image.

Digital image quality (file formats)

- .bmp – is lossless, but is a big file format and is not supported by all programs. Excellent quality.
- .png – is lossless. Best overall quality. Much lighter than .bmp and is supported by most image editing software.
- .jpg (jpeg) – most compatible. Compresses smaller, to not fill the memory cards, but JPG uses a compression which can cause image quality to suffer.
- .gif – replaced by .png
- .tif - is lossless, and is considered the high quality format for commercial work. Internet browsers and web pages cannot show TIF files, nor can they show RAW files from DSLR cameras.

Choosing a format

- When you save a JPEG image in TIF format, you basically "freeze" the image at its current level of detail and quality.
 - It is a good idea to save any image that you plan to edit or manipulate in a format such as TIF rather than JPEG. JPEG images lose quality every time they are edited and resaved.
- The following are some tips for when to use the different file formats:
 - **Web Publishing** - JPEG and PNG
 - **Enlargement printing (5x7 or larger)** - TIF, JPEG or BMP
 - **Onscreen Display** - JPEG

Editing photos

- Lots of industry software, Adobe Photoshop, Corel, free one GIMP
- We will use [Corel PhotoPaint](#)
 - Walkthrough how to use the program.
- Red eye removal, cropping, masking, retouching an image, sharpen, special effects, clone
- [ASSIGNMENT D1](#)

Design Basics

- **Balance** is an equal distribution of weight. In terms of graphics, this applies to visual weight.
- **Rhythm** is a pattern created by repeating elements that are varied. Repetition (repeating similar elements in a consistent manner)
- **Emphasis** is what stands out or gets noticed first. Every layout needs a focal point to draw the readers eye to the important part of the layout.
- **Unity** helps all the elements look like they belong together.
 - Unify elements by grouping elements that are close together so that they look like they belong together.

Magazine Cover

([James M Hill image gallery](#))

- It will be important that you manage and name your layers.
- Assignment requirements
 - Your magazine cover must have:
 - A title for your magazine
 - At least 4 different font styles
 - At least 10 layers total (including text layers)
 - A Barcode
 - Date and price
- Choose one of the attached image files as the starting point for your magazine cover (there is also an image of a barcode that you need to add).
- This assignment will be graded on:
 - Meeting the requirements
 - Creativity

Digital Imaging Camera Shots (Value 15)

- **With a partner work together to complete this assignment by taking photos with your own cameras**
- **What is the Rule of Thirds?**
 - Find 3 examples of the rule of thirds and explain how each pictures uses this rule.
- **What are Leading Lines?**
 - Find 3 examples of leading lines and and explain how each of your pictures uses them.
- **What is Framing?**
 - Find 3 examples of framing and and explain how each of your pictures uses it.
- *Your Powerpoint should include 1 Title Slide(names, Title of Assignment, Date), 1 Slide each for What is the Rule of Thirds?, What is the Rule of Thirds?, What is Framing? 1 Slide for each of your pictures with explanation of how your picture adheres to the Rule and a link to where you found it online.*